

**Listing of the Claims:**

The following is a complete listing of all the claims in the application, with an indication of the status of each:

1 - 40. (Canceled)

1     41. (New) A system for automated mapping of part numbers  
2     associated with parts in bills of materials (BOMs), submitted by a  
3     plurality of BOM originators to a BOM receiver, to the BOM  
4     receiver's internal part numbers, the system comprising a computer  
5     having a processor, a memory operative coupled to the processor,  
6     wherein the memory stores instructions that when executed by the  
7     processor perform operations comprising:  
8         receiving an historical BOM data describing BOMs received  
9     by the BOM receiver, from a plurality of BOM originators, over a  
10    time history;  
11         receiving known mapping data defining historical mappings  
12    between the BOM receiver's internal assigned part numbers and the  
13    BOM originators' various assigned part numbers;  
14         receiving part description parameters describing a plurality of  
15    parts to which the BOM receiver has assigned internal part  
16    numbers;  
17         computer methods of learning mapping prediction models for  
18    predicting BOM internal part numbers based on received BOMs  
19    from the plurality BOM originators, based on the historical BOM  
20    data, mapping data and part parametric data, wherein said  
21    computer methods include feature extraction for tokenizing a  
22    textual description of parts according to a token scheme and  
23    generating a corresponding list of parametric features based on the

24 extracted tokens, wherein said computer methods form said learned  
25 mapping prediction models according to a multi-level taxonomy  
26 arranged for a hierarchical prediction mapping, including initially  
27 predicting a class of an unmapped part based on a received  
28 information, and traversing down levels of the taxonomy, predicting  
29 the sub-class of the unmapped part at each subsequent level and, at  
30 a leaf level of the multi-level taxonomy, classifying the unmapped  
31 part to a BOM receiver internal part number based on the  
32 parametric features extracted from the BOM originator textual  
33 description of the unmapped part;

34 learning said prediction models from said historical BOM  
35 data, known mapping data, and part description parameters, using  
36 said methods of learning, and generating resulting learned  
37 prediction models;

38 receiving a BOM from a BOM originator, said BOM  
39 describing parts according to BOM originator assigned part  
40 numbers, wherein at least one of said BOM originator assigned part  
41 numbers is an unmapped part number not within said historical  
42 mapping data;

43 predicting a BOM receiver internal part number associated  
44 with at least one part described by said BOM having an unmapped  
45 part number, said predicting including applying at least one of said  
46 learned prediction models to said received BOM bill of materials;  
47 and

48 generating a release data having said predicted BOM receiver  
49 internal part number.